**FACT SHEET FOR NPDES PERMIT WA 000292-5**
**Daishowa America Company, Ltd.**
**P. O. Box 271**
**Port Angeles, Washington 98362**

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## INTRODUCTION

The Federal Clean Water Act (FCWA, 1972, and later modifications, 1977, 1981, and 1987) established water quality goals for the navigable (surface) waters of the United States. One of the mechanisms for achieving the goals of the Clean Water Act is the National Pollutant Discharge Elimination System of permits (NPDES permits), which is administered by the Environmental Protection Agency (EPA). The EPA has delegated responsibility to administer the NPDES permit program to the State of Washington on the basis of Chapter 90.48 RCW which defines the Department of Ecology's authority and obligations in administering the wastewater discharge permit program.

The regulations adopted by the State include procedures for issuing permits (Chapter 173-220 WAC), water quality criteria for surface and ground waters (Chapters 173-201A and 200 WAC), and sediment management standards (Chapter 173-204 WAC). These regulations require that a permit be issued before discharge of wastewater to waters of the state is allowed. The regulations also establish the basis for effluent limitations and other requirements which are to be included in the permit. One of the requirements (WAC 173-220-060) for issuing a permit under the NPDES permit program is the preparation of a draft permit and an accompanying fact sheet. Public notice of the availability of the draft permit is required at least thirty days before the permit is issued (WAC 173-220-050). The fact sheet and draft permit are available for review (see Appendix A--Public Involvement of the fact sheet for more detail on the Public Notice procedures).

The fact sheet and draft permit have been reviewed by the Permittee. Errors and omissions identified in this review have been corrected before going to public notice. After the public comment period has closed, the Department will summarize the substantive comments and the response to each comment. The summary and response to comments will become part of the file on the permit and parties submitting comments will receive a copy of the Department's response. The fact sheet will not be revised. Comments and the resultant changes to the permit will be summarized in Appendix D--Response to Comments.

| General Information | |
|---|---|
| Applicant:<br>Address: | Daishowa America Company, Ltd<br>P. O. Box 271, Port Angeles, Washington 98362 |
| Facility Name: | Daishowa America Company, Ltd. |
| SIC Code: | 2621 |
| Type of Facility: | Deinking and Thermomechanical Newsprint Pulp and Paper Mill |
| Latitude:<br>Longitude: | 48° 08' 13" N.<br>123° 28' 28" W. |
| Discharge Water Body ID Number: | WA-18-0010 |
| Location: | Strait of Juan de Fuca |

## BACKGROUND INFORMATION

### *DESCRIPTION OF THE FACILITY*

#### HISTORY

The Daishowa America Company's (Ex-Crown Zellerbach) pulp and paper mill was built in 1920 at the base of Ediz Hook in Port Angeles, Washington. A new deinking facility started production in February 1992. The mill produced about 153,000 salable tons of telephone grade paper per year in 2000. About 50 percent of the pulp had been derived from the deinking of outdated newsprint papers and telephone directories. The present mill employs about 277 employees.

#### INDUSTRIAL PROCESS

The existing pulp and paper mill will produce a daily average of 472 tons/day of paper off-of-the-machine. The paper produced during the last two years consisted of 209 tons/day from the thermo-mechanical pulping system, 222 tons/day from the deinking pulping system, and 41 tons/day pulp as non-integrated semi bleach kraft. These productions include culls and trims. These amounts are defined as off-the-machine paper production. The percentages of the three types of pulps used to make the directory type paper will be 47.1 % deinked pulp, 44.3 % TMP pulp, and 8.6 % nonintregated pulp. The increase was do to a correction in calculating production. That is, correcting from salable paper to off-the-machine production.

#### DISCHARGE OUTFALL

The discharge locations for both the treated process wastewater (outfall 001) and the filtered fresh water backwash (outfall 002) are at the base of Ediz Hook in the Strait of Juan de Fuca. Outfall 001 runs 1200 feet in a NNW direction into the Strait of Juan de Fuca. A dilution ratio dye study for outfall 001 was done in 1989 and amended in 1991. An update of the dilution performance was submitted by the Permittee on July 20, 1995 with the NPDES permit application. The acute and chronic dilution ratios for outfall 001 were determined to be 95:1 and 343:1, respectively. The filter backwash water comes from the fresh water treatment system that treats the Elwha River water before it is used in the paper making process. The filter plant backwash is discharged into the Strait of Juan de Fuca at the based of Ediz Hook. All stormwaters are discharged to the secondary wastewater treatment system. All sanitary wastewaters are discharged into the city of Port Angeles wastewater collection system where it is treated and discharged under the city's NPDES permit.

### *PERMIT STATUS*

The previous permit for this facility was issued on September 24, 1996. The previous permit placed effluent limitations on biochemical oxygen demand ($BOD_5$), total suspended solids (TSS), pH, oil and grease, and whole acute toxicity. The permit required the permittee to monitor the whole chronic toxicity in the fourth year of the permit. Also, the permit required the permittee to perform a sediment study in the vicinity of their outfall and monitor the effluent and receiving

water for copper, arsenic, and zinc. An application for permit renewal was submitted to the Department on March 26, 2001 and was accepted by the Department.

*SUMMARY OF COMPLIANCE WITH THE PREVIOUS PERMIT*

The facility received an inspection on June 14, 2001. A compliance inspection with sampling was conducted on April 4, 2001. During the history of the previous permit, the Permittee has remained in compliance based on Discharge Monitoring Reports (DMRs) submitted to the Department and inspections conducted by the Department except for TSS. The company had four exceedances of their TSS limit. The company was penalized a total of $13,000.

*WASTEWATER CHARACTERIZATION*

The proposed wastewater discharge is characterized for the following regulated parameters:

**Table 1: Wastewater Characterization Outfall 001**

| Parameter | Concentration |
|---|---|
| Color | 20 |
| Fecal coliform | 485 #/100 mls. |
| Flourides | 0.33 mg/L |
| Nitrates | 0.017 mg/L |
| Nitrogen (Total organic) | 3.4 mg/L |
| Oil & Grease | 6 mg/L |
| Phosphates | 2.6 mg/L |
| Sulfates | 430 mg/L |
| Aluminum | 0.38 mg/L |
| Barium | 0.015 mg /L |
| Boron | 1.9 mg/L |
| Cobalt | 0.007 mg/L |
| Iron | 0.99 mg/L |
| Magnesium | 3.6 mg/L |
| Manganese | 0.50 mg/L |
| Copper | 0.003 mg/L |

| | |
|---|---|
| Lead | 0.02 mg/L |
| Nickel | 0.005 mg/L |
| Selenium | 0.007 mg/L |
| Zinc | 0.15 mg/L |
| Cyanide | 0.036 mg/L |

**Table 2: Wastewater Characterization Outfall 002**

| Parameter | Concentration |
|---|---|
| Phosphorus | 1.5 mg//L |
| Arsenic(Dissolved) | 0.003 mg/L |
| Aluminum (total – dissolved) | 24 – 17 mg/L |
| Barium (total – dissolved) | 0.049 - .04 mg /L |
| Boron (total – dissolved) | 0.05 – 0.05 mg/L |
| Cobalt (total – dissolved) | 0.01 – 0.008 mg/L |
| Iron (total – dissolved) | 18 – 4.3 mg/L |
| Magnesium (total – dissolved) | 5.5 – 2.2 mg/L |
| Manganese (total – dissolved) | 0.74 - 0.61 mg/L |
| Tin | 0.023 mg/L |
| Copper (total – dissolved) | 0.082 – 0.028 mg/L |
| Titanium (total – dissolved) | 0.24 - 0.032 mg/L |
| Lead | 0.005 mg/L |
| Nickel (total – dissolved) | 0.005 – 0.003 mg/L |
| Selenium (total – dissolved) | 0.009 – 0.007 mg/L |
| Zinc (total – dissolved) | 0.057 – 0.032 mg/L |
| Cadmium (total – dissolved) | 0.00016 - 0.00007 mg/L |
| Silver | 0.0033 mg/L |

*SEPA COMPLIANCE*

There is no SEPA requirements related to reissuing this permit.

## PROPOSED PERMIT LIMITATIONS

Federal and State regulations require that effluent limitations set forth in a NPDES permit must be either technology- or water quality-based. Technology-based limitations are based upon the treatment methods available to treat specific pollutants. Technology-based limitations are set by

regulation or developed on a case-by-case basis (40 CFR 125.3, and Chapter 173-220 WAC). Water quality-based limitations are based upon compliance with the Surface Water Quality Standards (Chapter 173-201A WAC), Ground Water Standards (Chapter 173-200 WAC), Sediment Quality Standards (Chapter 173-204 WAC) or the National Toxics Rule (Federal Register, Volume 57, No. 246, Tuesday, December 22, 1992). The more stringent of these two limits must be chosen for each of the parameters of concern. Each of these types of limits is described in more detail below.

The limits in this permit are based in part on information received in the application. The effluent constituents in the application were evaluated on a technology- and water quality-basis. The limits necessary to meet the rules and regulations of the State of Washington were determined and included in this permit. Ecology does not develop effluent limits for all pollutants that may be reported on the application as present in the effluent**.** Some pollutants are not treatable at the concentrations reported, are not controllable at the source, are not listed in regulation, and do not have a reasonable potential to cause a water quality violation**.** Effluent limits are not always developed for pollutants that may be in the discharge but not reported as present in the application. In those circumstances the permit does not authorize discharge of the non-reported pollutants. Effluent discharge conditions may change from the conditions reported in the permit application. If significant changes occur in any constituent, as described in 40 CFR 122.42(a), the Permittee is required to notify the Department of Ecology. The Permittee may be in violation of the permit until the permit is modified to reflect additional discharge of pollutants.

*DESIGN CRITERIA*

The secondary wastewater treatment system is designed properly to meet the requirements of the NPDES permit.

*SURFACE WATER QUALITY-BASED EFFLUENT LIMITATIONS*

In order to protect existing water quality and preserve the designated beneficial uses of Washington's surface waters, WAC 173-201A-060 states that waste discharge permits shall be conditioned such that the discharge will meet established Surface Water Quality Standards. The Washington State Surface Water Quality Standards (Chapter 173-201A WAC) is a state regulation designed to protect the beneficial uses of the surface waters of the state. Surface water quality-based effluent limitations may be based on an individual waste load allocation (WLA) or on a WLA developed during a basin wide total maximum daily loading study (TMDL).

*TECHNOLOGY-BASED EFFLUENT LIMITATIONS*

Technology-based limitations are set by regulations or developed on a case by case basis. The federal effluent guidelines for practicable control technically available (BPT) is defined in Part 430 Subpart M for groundwood-thermomechanical subcategory and in Part 430 Subpart Q for deinking subcategory. These guidelines were published in the federal register on November 18, 1982 and March 30, 1983. The federal effluent guidelines for best conventional pollutants control technology (BCT) for these categories were defined on December 17, 1986 to be the same as BPT previously defined in March 1983. BCT and BPT were defined more than ten years ago. With BCT and BPT being defined longer than ten years, it is Ecology policy to

determine if they are still valid and if they can still be considered equivalent to all known and reasonable treatment (AKART) for these categories of paper making.

On April 15, 1998, the Environmental Protection Agency promulgated effluent guidelines for the Bleached Kraft Papergrade and Soda subcategories and Papergrade Sulfite subcategory. The 1998 allowance for BOD and TSS in pound per 1000 pound of pulp produced for the above categories were set at the same values as the allowances in the effluent guidelines published in 1982. The 1998 effluent guidelines took both emissions to air and water into consideration and included chlorinated organic compounds. Secondary treatment was the required type of treatment.

The company treats their wastewater with primary treatment followed by a secondary activated sludge treatment system. The wastewater treatment system removes above 95 percent solids and $BOD_5$ from the raw wastewater.

Throughout the history of the effluent guidelines, secondary treatment has been the accepted standard for BOD and TSS removal. It is expected that in the immediate future this trend will continue as indicated by the guideline promulgated on April 15, 1998. It is determined that the 1982 effluent guidelines for the TMP paper production, the deinking paper production, and nonintregrated paper production allowances are equivalent to AKART for the following reasons:

1) The mill wastewater flow has historically been from three components, that is TMP pulp production, deinked pulp production and nonintegrated.

2) There were no changes in the new guidelines for BOD and TSS for the type of paper making promulgated on April 15, 1998.

3) Secondary treatment has been and is expected to remain the level of treatment that the effluent guidelines are based on.

4) Four other permits have been issued with the 1982 effluent guidelines being determined to be equivalent to AKART.

Therefore, the 1982 guidelines allowances from 40 CFR 430.132 Subpart M will be used for the thermo-mechanical portion of the production, 40 CFR 430.172 Subpart Q will be used for the deinked portion of the production, and 40 CFR 430.182 Subpart R will be used for the SBK portion of the production. The allowances are the same as the ones in the 1998 guidelines since they were only reorganized and not re-promulgated. Effluent guidelines allowances for these types of production are given below:

| | BOD 30 day ave lbs/1000 lbs | BOD daily max lbs/1000 lbs | TSS 30 day ave lbs/1000 lbs | TSS daily max lbs/1000 lbs |
|---|---|---|---|---|
| TMP | 5.55 | 10.6 | 8.35 | 15.55 |
| Deinked | 3.2 | 6.0 | 6.3 | 12.0 |
| SBK | 4.25 | 8.2 | 5.9 | 11.0 |

The production used is given below:

| Production | TMP Tons/day | Deinked Tons/day | SBK Tons/day | Total combined production tons/day |
|---|---|---|---|---|
| Base | 209 | 222 | 41 | 472 |

The limits are calculated using the production and allowances indicated. The effluent limits are summarized below:

| Production (ton/day) Total | BOD Monthly Average | BOD Daily Maximum | TSS Monthly Average | TSS Daily Maximum |
|---|---|---|---|---|
| 472 | 4090 | 7770 | 6770 | 12730 |

NUMERICAL CRITERIA FOR THE PROTECTION OF AQUATIC LIFE

"Numerical" water quality criteria are numerical values set forth in the State of Washington's Water Quality Standards for Surface Waters (Chapter 173-201A WAC). They specify the levels of pollutants allowed in the receiving water while remaining protective of aquatic life. Numerical criteria set forth in the Water Quality Standards are used along with chemical and physical data for the wastewater and receiving water to derive the effluent limits in the discharge permit. When surface water quality-based limits are more stringent or potentially more stringent than technology-based limitations, they must be used in a permit.

NUMERICAL CRITERIA FOR THE PROTECTION OF HUMAN HEALTH

The U.S. EPA has promulgated 91 numeric water quality criteria for the protection of human health that are applicable to Washington State (EPA 1992). These criteria are designed to protect humans from cancer and other disease and are primarily applicable to fish and shellfish consumption and drinking water from surface waters.

NARRATIVE CRITERIA

In addition to numerical criteria, "narrative" water quality criteria (WAC 173-201A-030) limit toxic, radioactive, or deleterious material concentrations below those which have the potential to adversely affect characteristic water uses, cause acute or chronic toxicity to biota, impair aesthetic values, or adversely affect human health. Narrative criteria protect the specific beneficial uses of all fresh (WAC 173-201A-130) and marine (WAC 173-201A-140) waters in the State of Washington.

ANTIDEGRADATION

The State of Washington's Antidegradation Policy requires that discharges into a receiving water shall not further degrade the existing water quality of the water body. In cases where the natural conditions of receiving water are of lower quality than the criteria assigned, the natural conditions shall constitute the water quality criteria. Similarly, when the natural conditions of receiving water are of higher quality than the criteria assigned, the natural conditions shall

constitute the water quality criteria. More information on the State Antidegradation Policy can be obtained by referring to WAC 173-201A-070.

The Department has reviewed existing records and is unable to determine if ambient water quality is either higher or lower than the designated classification criteria given in Chapter 173-201A WAC; therefore, the Department will use the designated classification criteria for this water body in the proposed permit. The discharges authorized by this proposed permit should not cause a loss of beneficial uses.

### CRITICAL CONDITIONS

Surface water quality-based limits are derived for the waterbody's critical condition, which represents the receiving water and waste discharge condition with the highest potential for adverse impact on the aquatic biota, human health, and existing or characteristic water body uses.

### MIXING ZONES

The Water Quality Standards allow the Department of Ecology to authorize mixing zones around a point of discharge in establishing surface water quality-based effluent limits. Both "acute" and "chronic" mixing zones may be authorized for pollutants that can have a toxic effect on the aquatic environment near the point of discharge. The concentration of pollutants at the boundary of these mixing zones may not exceed the numerical criteria for that type of zone. Mixing zones can only be authorized for discharges that are receiving all known, available, and reasonable methods of prevention, control and treatment (AKART) and in accordance with other mixing zone requirements of WAC 173-201A-100.

The National Toxics Rule (EPA, 1992) allows the chronic mixing zone to be used to meet human health criteria.

### DESCRIPTION OF THE RECEIVING WATER

The facility discharges into Strait of Juan de Fuca which is designated as a Class AA water in the vicinity of the outfalls. Other nearby point sources include the City of Port Angeles and K Ply, Inc. Characteristic uses include fish migration; fish rearing, spawning and harvesting; wildlife habitat; primary contact recreation; sport fishing; boating and aesthetic enjoyment; commerce and navigation. Water quality of this class shall markedly and uniformly exceed the requirements for all or substantially all uses. Water quality of this class shall meet or exceed the requirements of selected and essential uses.

### SURFACE WATER QUALITY CRITERIA

Applicable criteria are defined in Chapter 173-201A WAC for aquatic biota. In addition, U.S. EPA has promulgated human health criteria for toxic pollutants (EPA 1992). Criteria for these discharges are summarized below:

| | |
|---|---|
| Fecal Coliforms | 14 colonies/100 mL maximum geometric mean |
| Dissolved Oxygen | 7 mg/L minimum |

| | |
|---|---|
| Temperature | 13 degrees Celsius maximum |
| pH | 6.5 to 8.5 standard units |
| Turbidity | less than 5 NTU above background |
| Toxics | No toxics in toxic amounts were found in the discharge from outfalls 001 and 002 (See Appendix C for numeric criteria for toxics of concern for this discharge.) |

CONSIDERATION OF SURFACE WATER QUALITY-BASED LIMITS FOR NUMERIC CRITERIA

If pollutant concentrations in the proposed discharge exceed water quality criteria with technology-based controls that the Department has determined to be AKART, a mixing zone is authorized in accordance with the geometric configuration, flow restriction, and other restrictions for mixing zones in Chapter 173-201A WAC. The dilution models used in predicting the dilution ratios were determined to be conservative as compared to the dye study performed by CH2MHill in 1989. The dilution factors have been determined to be 95:1 for the acute dilution ratio and 343:1 for the chronic dilution ratio.

The dilution ratios for the filter backwash, outfall 002 are 9:1 for the acute dilution ratio and 18:1 for the chronic.

| Outfall 001 | Acute | Chronic |
|---|---|---|
| Aquatic Life | 95 | 343 |
| Human Health, Carcinogen | | 343 |
| Human Health, Non-carcinogen | | 343 |
| **Outfall 002** | **Acute** | **Chronic** |
| Aquatic Life | 9 | 18 |
| Human Health, Carcinogen | | 18 |
| Human Health, Non-carcinogen | | 18 |

Pollutants in an effluent may affect the aquatic environment near the point of discharge (near field) or at a considerable distance from the point of discharge (far field). Toxic pollutants, for example, are near-field pollutants--their adverse effects diminish rapidly with mixing in the receiving water. Conversely, a pollutant such as BOD is a far-field pollutant whose adverse effect occurs away from the discharge even after dilution has occurred. Thus, the method of calculating surface water quality-based effluent limits varies with the point at which the pollutant has its maximum effect.

The derivation of surface water quality-based limits also takes into account the variability of the pollutant concentrations in both the effluent and the receiving water.

Turbidity

The impact of turbidity was evaluated based on the range of turbidity in the effluent and turbidity of the receiving water. Due to the large degree of dilution, it was determined that the turbidity criteria would not be violated outside the designated mixing zone.

Dissolved Oxygen

Due to the large dilution factor and large current speed, it has been determined that the receiving water will not adversely be effected by these discharges.

Temperature

The impact of temperature of the discharge on the receiving water was modeled with a simple mixing analysis at critical conditions. The receiving water and the effluent temperatures at critical conditions are 13 $^{o}$C and 31.5 $^{o}$C, respectively. The predicted resultant temperature at the boundary of the chronic mixing zone is 13.06 $^{o}$C. The wastewater discharge will not adversely affect the receiving waters.

pH

Because of the high buffering capacity of marine water, compliance with the technology-based limits of 5 to 9 will assure compliance with the Water Quality Standards for Surface Waters. EPA has published a standard variance for pH at industrial plants having continuous pH measuring devices (40 CFR Part 401.17.) This variance allows an uncontrolled pH discharge beyond the permitted range for 1 hour at any pH level, and a total pH excursions of up to 7 hours, 26 minutes per month for one unit of pH above or below the criteria. In the last NPDES permit, the pH variance allowance was further restricted by the department to just one pH unit beyond the permitted range. The pH variance allowance has been continued in this permit.

$BOD_5$

Under critical conditions there is no predicted violation of the Water Quality Standards for Surface Waters. Therefore, the technology-based effluent limitation for $BOD_5$ was placed in the permit.

TOXIC POLLUTANTS

Federal regulations (40 CFR 122.44) require NPDES permits to contain effluent limits for toxic chemicals in an effluent whenever there is a reasonable potential for those chemicals to exceed the surface water quality criteria. This process occurs concurrently with the derivation of technology-based effluent limits. Facilities with technology-based effluent limits defined in regulation are not exempted from meeting the Water Quality Standards for Surface Waters or from having surface water quality-based effluent limits. The following toxics were determined to be present in the discharge: copper, cadimum, zinc, cyanide, selenium, arsenic, and manganese. A reasonable potential analysis was conducted on these parameters to determine whether or not effluent limitations would be required in this permit. None of these chemicals had a reasonable potential of exceeding the water quality criteria.

WHOLE EFFLUENT TOXICITY

The Water Quality Standards for Surface Waters require that the effluent not cause toxic effects in the receiving waters. Many toxic pollutants cannot be detected by commonly available detection methods. However, toxicity can be measured directly by exposing living organisms to the wastewater in laboratory tests and measuring the response of the organisms. Toxicity tests

measure the aggregate toxicity of the whole effluent, and therefore this approach is called whole effluent toxicity (WET) testing. Acute toxicity tests measure mortality as the significant response to the toxicity of the effluent. Dischargers who monitor their wastewater with acute toxicity tests are providing an indication of the potential lethal effect of the effluent to organisms in the receiving environment.

The previous permit had an acute WET toxicity limitation. The acute toxicity test results of the rainbow trout, the fathead minnow, and the ceriodaphnia performed on a quarterly rotational basis had a range of survival of 95 to 100 percent in 100 percent effluent for the terms of the permit. Therefore, no limits will be placed in the proposed permit. The company performed two rounds of chronic testing. One of these tests using three species was completed in 2000 and the other in 2001. There was no toxicity at the ACEC in these tests. Therefore, chronic WET limit will not be placed in the proposed permit. However, the permittee will be required to retest the effluent prior to application for permit renewal for acute and chronic WET toxicity in order to demonstrate that toxicity has not increased in the effluent. The results of these tests will be submitted to Ecology with the permit application.

### HUMAN HEALTH

Washington's water quality standards now include 91 numeric health-based criteria that must be considered in NPDES permits. These criteria were promulgated for the state by the U.S. EPA in its National Toxics Rule (Federal Register, Volume 57, No. 246, Tuesday, December 22, 1992). A determination of the discharge's potential to cause an exceedance of the water quality standards was conducted as required by 40 CFR 122.44(d). The reasonable potential determination was evaluated with procedures given in the Technical Support Document for Water Quality-Based Toxics Control (EPA/505/2-90-001) and the Department's Permit Writer's Manual (Ecology Publication 92-109, July, 1994). The determination indicated that the discharge has no reasonable potential to cause a violation of water quality standards, thus an effluent limit is not warranted.

### SEDIMENT QUALITY

The Department has promulgated aquatic sediment standards (Chapter 173-204 WAC) to protect aquatic biota and human health. These standards state that the Department may require the Permittee to evaluate the potential for the discharge to cause a violation of applicable standards (WAC 173-204-400). The permittee performed sediment sampling and analyses two times in previous permits. Hexachlorobenzene was found above the detection limit in three sediment samples performed in the report submitted in 1999. The sampling points were AS-1, MZ-3 and MZ-4. All other parameters were considered to be below the sediment quality standards. The permittee does not use chlorine containing compounds in the valence state that would explain the production of chlorobenzene in the sediment. It is suspected that the detected compound may be from historical sources. Therefore, the sediment sampling may be required in the future to ascertain if the compounds are degrading. The proposed permit requires the permittee to prepare and submit a sediment study plan with the next permit application. Sampling of the sediment may be required after Ecology review of the sediment study plan.

*GROUND WATER QUALITY LIMITATIONS*

The Department has promulgated Ground Water Quality Standards (Chapter 173-200 WAC) to protect beneficial uses of ground water. Permits issued by the Department shall be conditioned in such a manner so as not to allow violations of those standards (WAC 173-200-100). The Permittee has no discharge to groundwater; and therefore, no limitations are required based on potential effects to ground water.

COMPARISON OF EFFLUENT LIMITS WITH THE EXISTING PERMIT ISSUED ON SEPTEMBER 24, 1996

| Parameter | Existing Limits (lbs./day) | Proposed Limits (lbs./day) |
|---|---|---|
| $BOD_5$ (Monthly average) | 3795 | 4090 |
| $BOD_5$ (Daily maximum) | 7198 | 7770 |
| TSS (Monthly average) | 6404 | 6770 |
| TSS (Daily maximum) | 12053 | 12730 |
| pH (Minimum - maximum) | 5.0 – 9.0 SU | 5.0 – 9.0 SU |
| O & G (Maximum) | 15 mg/L | 15 mg/L |

The limits for BOD and TSS increased due to the corrections made in the changing from the use of salable paper to off-the-machine paper production in the calculating these limits.

## MONITORING REQUIREMENTS

Monitoring, recording, and reporting are required (WAC 173-220-210 and 40 CFR 122.41) to verify that the treatment process is functioning correctly and the effluent limitations are being achieved. The monitoring schedule is detailed in the proposed permit under Condition S.2. Specified monitoring frequencies taking into account the quantity and variability of the discharge, the treatment method, past compliance, significance of pollutants, and cost of monitoring.

*LAB ACCREDITATION*

With the exception of certain parameters the permit requires all monitoring data to be prepared by a laboratory registered or accredited under the provisions of Chapter 173-50 WAC, *Accreditation of Environmental Laboratories*. The permittee's laboratory is accredited for $BOD_5$, TSS, pH, and dissolved oxygen.

## OTHER PERMIT CONDITIONS

*REPORTING AND RECORDKEEPING*

The conditions of S3 are based on the authority to specify any appropriate reporting and recordkeeping requirements to prevent and control waste discharges (WAC 173-220-210).

*NON-ROUTINE AND UNANTICIPATED DISCHARGES*

Occasionally, this facility may generate wastewater that is not characterized in their permit application because it is not a routine discharge and was not anticipated at the time of application. These typically are waters used to pressure test storage tanks or fire water systems or leaks from drinking water systems. These are typically clean wastewaters but may be contaminated with pollutants. The permit contains an authorization for non-routine and unanticipated discharges. The permit requires a characterization of these wastewaters for pollutants and examination of the opportunities for reuse. Depending on the nature and extent of pollutants in this wastewater and opportunities for reuse, Ecology may authorize a direct discharge via the process wastewater outfall or through a stormwater outfall for clean water, require the wastewater to be placed through the facilities wastewater treatment process or require the water to be reused.

*SPILL PLAN*

The Department has determined that the Permittee stores a quantity of chemicals that have the potential to cause water pollution if accidentally released. The Department has the authority to require the Permittee to develop best management plans to prevent this accidental release under section 402(a)(1) of the Federal Water Pollution Control Act (FWPCA) and RCW 90.48.080. The Permittee has developed a plan for preventing the accidental release of pollutants to state waters and for minimizing damages if such a spill occurs. The proposed permit requires the Permittee to update this plan and submit it to the Department.

*SOLID WASTE PLAN*

The Department has determined that the Permittee has a potential to cause pollution of the waters of the state from leachate of solid waste. This proposed permit requires, under authority of RCW 90.48.080, that the Permittee update their solid waste. The plan must be submitted to the local permitting agency for approval, if necessary, and to the Department.

*OUTFALL EVALUATION*

Proposed permit requires the Permittee to conduct an outfall inspection in the fourth year of the permit and submit a report detailing the findings of that inspection. The purpose of the inspection is to determine the condition of the discharge pipe and diffusers and to evaluate the extent of sediment accumulations in the vicinity of the outfall.

*TREATMENT SYSTEM OPERATING PLAN*

In accordance with state and federal regulations, the Permittee is required to take all reasonable steps to properly operate and maintain the treatment system (40 CFR 122.41(e)) and WAC 173-220-150 (1)(g). The implementation of the procedures in the Treatment System Operating Plan is a reasonable measure to ensure compliance with the terms and limitations in the permit. The permitee has prepared a treatment system operation plan in previous permit. The proposed permit requires that the treatment system operation plan be updated and submitted to the department.

*GENERAL CONDITIONS*

General Conditions are based directly on state and federal law and regulations and have been standardized for all individual industrial NPDES permits issued by the Department.

## PERMIT ISSUANCE PROCEDURES

*PERMIT MODIFICATIONS*

The Department may modify this permit to impose numerical limitations, if necessary to meet Water Quality Standards for Surface Waters, Sediment Quality Standards, or Water Quality Standards for Ground Waters, based on new information obtained from sources such as inspections, effluent monitoring, outfall studies, and effluent mixing studies. The Department may also modify this permit as a result of new or amended state or federal regulations.

*RECOMMENDATION FOR PERMIT ISSUANCE*

This proposed permit meets all statutory requirements for authorizing a wastewater discharge, including those limitations and conditions believed necessary to control toxics, protect human health, aquatic life, and the beneficial uses of waters of the State of Washington. The Department proposes that this proposed permit be issued for five (5) years.

## REFERENCES FOR TEXT AND APPENDICES

Environmental Protection Agency (EPA)

1992. National Toxics Rule. Federal Register, V. 57, No. 246, Tuesday, December 22, 1992.

1991. Technical Support Document for Water Quality-based Toxics Control. EPA/505/2-90-001.

1988. Technical Guidance on Supplementary Stream Design Conditions for Steady State Modeling. USEPA Office of Water, Washington, D.C.

1985. Water Quality Assessment: A Screening Procedure for Toxic and Conventional Pollutants in Surface and Ground Water. EPA/600/6-85/002a.

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## APPENDIX A--PUBLIC INVOLVEMENT INFORMATION

The Department has tentatively determined to reissue a permit to the applicant listed on page 1 of this fact sheet. The permit contains conditions and effluent limitations that are described in the fact sheet.

The Department will publish a Public Notice of Draft (PNOD) on September 28, 2001 in Peninsula Daily News to inform the public that a draft permit and fact sheet are available for review. Interested persons are invited to submit written comments regarding the draft permit. The draft permit, fact sheet, and related documents are available for inspection and copying between the hours of 8:00 a.m. and 5:00 p.m. weekdays, by appointment, at the regional office listed below. Written comments should be mailed to:

Don Nelson
Department of Ecology
Industrial Section
P. O. Box 47706
Olympia, WA 98504-7706

Any interested party may comment on the draft permit or request a public hearing on this draft permit within the thirty (30) day comment period to the address above. The request for a hearing shall indicate the interest of the party and reasons why the hearing is warranted. The Department will hold a hearing if it determines there is a significant public interest in the draft permit (WAC 173-220-090). Public notice regarding any hearing will be circulated at least thirty (30) days in advance of the hearing. People expressing an interest in this permit will be mailed an individual notice of hearing (WAC 173-220-100).

Comments should reference specific text followed by proposed modification or concern when possible. Comments may address technical issues, accuracy and completeness of information, the scope of the facility's proposed coverage, adequacy of environmental protection, permit conditions, or any other concern that would result from issuance of this permit.

The Department will consider all comments received within thirty (30) days from the date of public notice of draft indicated above, in formulating a final determination to issue, revise, or deny the permit. The Department's response to all significant comments is available upon request and will be mailed directly to people expressing an interest in this permit.

Further information may be obtained from the Department by telephone, 360-407-6940, or by writing to the address listed above.

The permit and factsheet were written by Don Nelson.

## APPENDIX B--GLOSSARY

**Acute Toxicity**--The lethal effect of a compound on an organism that occurs in a short period of time, usually 48 to 96 hours.

**AKART**-- An acronym for "all known, available, and reasonable methods of treatment".

**Ambient Water Quality**--The existing environmental condition of the water in a receiving water body.

**Ammonia**--Ammonia is produced by the breakdown of nitrogenous materials in wastewater. Ammonia is toxic to aquatic organisms, exerts an oxygen demand, and contributes to eutrophication. It also increases the amount of chlorine needed to disinfect wastewater.

**Average Monthly Discharge Limitation** --The average of the measured values obtained over a calendar month's time.

**Best Management Practices (BMPs)**--Schedules of activities, prohibitions of practices, maintenance procedures, and other physical, structural and/or managerial practices to prevent or reduce the pollution of waters of the State. BMPs include treatment systems, operating procedures, and practices to control: plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. BMPs may be further categorized as operational, source control, erosion and sediment control, and treatment BMPs.

**$BOD_5$**--Determining the Biochemical Oxygen Demand of an effluent is an indirect way of measuring the quantity of organic material present in an effluent that is utilized by bacteria. The $BOD_5$ is used in modeling to measure the reduction of dissolved oxygen in a receiving water after effluent is discharged. Stress caused by reduced dissolved oxygen levels makes organisms less competitive and less able to sustain their species in the aquatic environment. Although BOD is not a specific compound, it is defined as a conventional pollutant under the federal Clean Water Act.

**Bypass**--The intentional diversion of waste streams from any portion of a treatment facility.

**Chlorine**--Chlorine is used to disinfect wastewaters of pathogens harmful to human health. It is also extremely toxic to aquatic life.

**Chronic Toxicity**--The effect of a compound on an organism over a relatively long time, often 1/10 of an organism's lifespan or more. Chronic toxicity can measure survival, reproduction or growth rates, or other parameters to measure the toxic effects of a compound or combination of compounds.

**Clean Water Act (CWA)**--The Federal Water Pollution Control Act enacted by Public Law 92-500, as amended by Public Laws 95-217, 95-576, 96-483, 97-117; USC 1251 et seq.

**Compliance Inspection - Without Sampling**--A site visit for the purpose of determining the compliance of a facility with the terms and conditions of its permit or with applicable statutes and regulations.

**Compliance Inspection - With Sampling**--A site visit to accomplish the purpose of a Compliance Inspection - Without Sampling and as a minimum, sampling and analysis for all parameters with limits in the permit to ascertain compliance with those limits; and, for municipal facilities, sampling of influent to ascertain compliance with the 85 percent removal requirement. Additional sampling may be conducted.

**Composite Sample**--A mixture of grab samples collected at the same sampling point at different times, formed either by continuous sampling or by mixing discrete samples. May be "time-composite"(collected at constant time intervals) or "flow-proportional" (collected either as a constant sample volume at time intervals proportional to stream flow, or collected by increasing the volume of each aliquot as the flow increased while maintaining a constant time interval between the aliquots.

**Construction Activity**--Clearing, grading, excavation and any other activity which disturbs the surface of the land. Such activities may include road building, construction of residential houses, office buildings, or industrial buildings, and demolition activity.

**Continuous Monitoring** –Uninterrupted, unless otherwise noted in the permit.

**Critical Condition**--The time during which the combination of receiving water and waste discharge conditions have the highest potential for causing toxicity in the receiving water environment. This situation usually occurs when the flow within a water body is low, thus, its ability to dilute effluent is reduced.

**Dilution Factor**--A measure of the amount of mixing of effluent and receiving water that occurs at the boundary of the mixing zone. Expressed as the inverse of the percent effluent fraction e.g., a dilution factor of 10 means the effluent comprises 10% by volume and the receiving water 90%.

**Engineering Report**--A document which thoroughly examines the engineering and administrative aspects of a particular domestic or industrial wastewater facility. The report shall contain the appropriate information required in WAC 173-240-060 or 173-240-130.

**Fecal Coliform Bacteria**--Fecal coliform bacteria are used as indicators of pathogenic bacteria in the effluent that are harmful to humans. Pathogenic bacteria in wastewater discharges are controlled by disinfecting the wastewater. The presence of high numbers of fecal coliform bacteria in a water body can indicate the recent release of untreated wastewater and/or the presence of animal feces.

**Grab Sample**--A single sample or measurement taken at a specific time or over as short period of time as is feasible.

**Industrial Wastewater**--Water or liquid-carried waste from industrial or commercial processes, as distinct from domestic wastewater. These wastes may result from any process or activity of industry, manufacture, trade or business, from the development of any natural resource, or from animal operations such as feed lots, poultry houses, or dairies. The term includes contaminated storm water and, also, leachate from solid waste facilities.

**Major Facility--**A facility discharging to surface water with an EPA rating score of > 80 points based on such factors as flow volume, toxic pollutant potential, and public health impact.

**Maximum Daily Discharge Limitation**--The highest allowable daily discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. The daily discharge is calculated as the average measurement of the pollutant over the day.

**Method Detection Level (MDL)--**The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is above zero and is determined from analysis of a sample in a given matrix containing the analyte.

**Minor Facility--**A facility discharging to surface water with an EPA rating score of < 80 points based on such factors as flow volume, toxic pollutant potential, and public health impact.

**Mixing Zone**--An area that surrounds an effluent discharge within which water quality criteria may be exceeded. The area of the authorized mixing zone is specified in a facility's permit and follows procedures outlined in state regulations (Chapter 173-201A WAC).

**National Pollutant Discharge Elimination System (NPDES)**--The NPDES (Section 402 of the Clean Water Act) is the Federal wastewater permitting system for discharges to navigable waters of the United States. Many states, including the State of Washington, have been delegated the authority to issue these permits. NPDES permits issued by Washington State permit writers are joint NPDES/State permits issued under both State and Federal laws.

**pH**--The pH of a liquid measures its acidity or alkalinity. A pH of 7 is defined as neutral, and large variations above or below this value are considered harmful to most aquatic life.

**Quantitation Level (QL)--** A calculated value five times the MDL (method detection level).

**Responsible Corporate Officer**-- A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or have gross annual sales or expenditures exceeding $25 million (in second quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures (40 CFR 122.22).

**Technology-based Effluent Limit**--A permit limit that is based on the ability of a treatment method to reduce the pollutant.

**Total Suspended Solids (TSS)**--Total suspended solids is the particulate material in an effluent. Large quantities of TSS discharged to a receiving water may result in solids accumulation. Apart from any toxic effects attributable to substances leached out by water, suspended solids may kill fish, shellfish, and other aquatic organisms by causing abrasive injuries and by clogging the gills and respiratory passages of various aquatic fauna. Indirectly, suspended solids can screen out light and can promote and maintain the development of noxious conditions through oxygen depletion.

**State Waters**--Lakes, rivers, ponds, streams, inland waters, underground waters, salt waters, and all other surface waters and watercourses within the jurisdiction of the state of Washington.

**Stormwater**--That portion of precipitation that does not naturally percolate into the ground or evaporate, but flows via overland flow, interflow, pipes, and other features of a storm water drainage system into a defined surface water body, or a constructed infiltration facility.

**Upset**--An exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the Permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, lack of preventative maintenance, or careless or improper operation.

**Water Quality-based Effluent Limit**--A limit on the concentration of an effluent parameter that is intended to prevent the concentration of that parameter from exceeding its water quality criterion after it is discharged into a receiving water.

## APPENDIX C--TECHNICAL CALCULATIONS

Several of the Excel® spreadsheet tools used to evaluate a discharger's ability to meet Washington State water quality standards can be found on the Department's homepage at http.www:wa.gov.ecology.

## APPENDIX D--RESPONSE TO COMMENTS

The Olympic Environmental Council submits the following in response to the additional request for comments on the draft NPDES permit (# WA000292-5) and fact sheet for the Daishowa America Company, Ltd.

**Comment No. 1.**

Daishowa America has been cited for a number of NPDES violations. This permit did not reflect these.

**Response:**

Please see page 3, Summary of compliance for the violations and penalties issued.

**Comment No. 2.**

This permit seems standardized and liberal.

Response:

A. Standardized. – Certain parts namely the style, organization, format, and general conditions of the factsheet and permit are boilerplate. However, the studies, submittals, monitoring, reporting, and limitations, etc. are mill specific.

B. Liberal – The proposed permit was written following the current rules and regulations.

No changes are required in the permit

**Comment No. 3.**

The Department of Ecology has pledged to start removing from our waters bioaccumulative toxins. This permit does not reflect the Department's commitment. In effect, it proposes to increase the toxic load in our waters. Not acceptable. This further makes no sense as Daishowa is now talking about cutting back some of its manufacturing activities.

**Response:**

The mill does not use any chlorine containing compounds in the bleaching process. The permit was written with due considerations of technology based limitations, water quality based limitations, and health based limitations. Also, we look at the nine PBT chemicals and none were detected in the mill's effluent. No changes are made to the permit.

**Comment No. 4.**

1). The Olympic Environmental Council does not support the use of mixing zones to meet water quality standards. In section S12, the chronic mixing zone of 330 feet with a dilution factor of 342:1 and an acute mixing zone that is 33 feet in any direction and is diluted to a factor of 95:1. The mixing zone should be decreased from the previous permit. The Department of Ecology should enforce the Clean Water Act by decreasing the mixing zone, thus instructing the applicant to find ways to continually decrease their effluent discharge and use the best available technology and methods to control pollution.

**Response:**

The current rules and regulations allow both acute and chronic mixing zones if the level of wastewater treatment is at AKART (WAC 173-201A-100(2)). The dilution zones are kept in the permit.

**Comment No. 5.**

2). The BOD and TSS allowed has been increased from the last permit! In section S1 the BOD and TSS daily maximum is 7,770 Lbs. BOD5/day and 12,730 Lbs. BOD5/day, respectively. The daily maximum of these in the old permit were 7,198 Lbs/day and 12,053 Lbs/day. This increase is also reflected in the average monthly allowances. The new permit allows BOD and TSS amounts to be no larger than 4,090 and 6,770 Lbs. BOD5/day while the old permit had lower amounts -- 3,795 and 6,404 Lbs/day. Increased BOD and TSS contaminants increase the toxicity of the water. This is inconsistent with stated policies of your Department.

**Response:**

The increases in BOD and TSS limitations was due to revision in the calculations of the production from salable product to off-of-the-machine production in accordance with 40 CFR 430.01(n). The limitation stands.

**Comment No. 6.**

Therefore, the Department of Ecology needs to revise all these numbers so they are sufficiently lower than those in the previous NPDES (1996-2001) permit to start the company finding ways to minimize effluent discharge and aid in the restoration of our natural marine resources

**Response:**

The proposed permit was written following the current rules and regulations. The limitation stands.

Daishowa America Co., Ltd. has reviewed the draft NPDES fact sheet and permit issued by the Washington State Department of Ecology (DOE) for public comment on September 28, 2001. As you advised, the closing date for these comments is Monday, October 29, 2001, since the 30 day public comment period ends on a weekend.

FACT SHEET COMMENTS

**Comment No. 1.**

- **p. 2, Industrial Process** – We believe our previous method of calculating production to be correct. We have recently, March 2001 DMR, revised this method to more closely represent production. We therefore propose the following language in the last two sentences of this section: "The increase was do to a **revision** ~~**correction**~~ in calculating production. That is, **revised** ~~**corrected**~~ from salable paper to off-the-machine production **as allowed by 40 CFR 430.01(n)**."

**Response:**

We agree with the changes. The response to comments becomes part of the factsheet.

**Comment No. 2.**

- **p. 2, Permit Status** – We propose that the third sentence, referring to the previous permit, be changed to read "The permit required the permittee to monitor the whole chronic toxicity in the **fifth** ~~**fourth**~~ year of the permit" as stated in the previous permit; Page 3, permit section S1.D under frequency. "2 times during the 5th year of permit"

**Response:**

We agree with the changes. The response to comments becomes part of the factsheet.

**Comment No. 3.**

- **p. 4, Table 2: Wastewater Characterization Outfall 002** – Tin, Lead and Silver are not labeled as to whether the value given is total or dissolved. Total and dissolved values were submitted with the permit application. We propose either adding the dissolved value and label them as "(total – dissolved)" or keeping the value as it is and adding a "(total)" label to identify what value is being used.

**Response:**

The concentration of tin, silver, and lead in the factsheet are for total values.

**Comment No. 4.**

- **p. 5, Proposed Permit Limitations, 2nd paragraph** – Daishowa proposes that the 6th and 7th sentences in the paragraph be removed in their entirety (the 6th sentence starts: Effluent limits…). Both sentences are ambiguous, do not describe any conditions in the permit, and do not meet or serve any of the requirements for permit fact sheets set out in the regulations (WAC 173-220-060). They are also of questionable and debatable accuracy (depending on the circumstances).

We also recommend that the last sentence of the paragraph be eliminated. The sentence is not accurate, and is unnecessary. It conflicts with the concept of the permit shield. It is also not accurate because it indicates that the permittee may be in violation of the permit until the permit is modified. The permittee might be in violation of certain regulations (specifically toxic pollutant effluent standards) but the permittee would not actually be in violation of the permit.

**Response:**

These sentences are necessary to explain the permit shield for chemicals that were reported as nondetected in the application. Ecology can not give a shield for any chemicals that may be in the effluent but not reported. The statements are valid and should have been in the factsheet.

**Comment No. 5.**

- **p. 9, Surface Water Quality Criteria** – The pH range for marine waters listed in WAC 173-201A for class AA waters is "7.0 to 8.5 (marine waters)." The range given, "6.5 to 8.5 standard units", in the draft permit is for class AA freshwater.

**Response:**

Noted. The values were stated incorrectly.

**Comment No. 6.**

- **p. 11, Sediment Quality** – In the most recent sediment sampling only one compound of concern was found slightly above the SQS criteria in three of ten samples. There were no metal exceedances and the majority of organic compounds were not detected at any station. The overall result of the 1999 Sediment Monitoring report is that very few chemicals were detected and only one was above the SQS (e.g. 0.63, 0.89, and 0.50 ppm compared to SQS of 0.38). Please see our comments about special condition S10, however we do not believe an additional sediment study is warranted in this case.

**Response:**

The permit does not require sediment study. The permit only requires that a sediment study plan be submitted. However, the permit that will be issued after the proposed permit expires may require the completion of sediment sampling. The condition stands.

**Comment No. 7.**

- **p. 12, Comparison Of Effluent Limits With the Existing Permit Issued On September 24, 1996** – We propose the following language for the production calculation modifications explained at the bottom of this section. "The limits for BOD and TSS increased due to a

revision in the calculation of production. The calculation was revised from counting only salable paper to include all off-the-machine production as allowed by 40 CFR 430.01n."

**Response:**

We agree.

DRAFT PERMIT COMMENTS

**Comment No. 8.**

- **p. 7, Table, EFFLUENT LIMITATIONS: OUTFALL # 001 –** The pH lower limit of 6 is incorrect. We propose the following correction "Daily minimum is equal to or greater than **5** ~~**6**~~ and the daily maximum is less than or equal to 9". Additionally, footnote [c] should be corrected to reflect this change in the lower limit as follows "When pH is continuously monitored excursions between **4.0** ~~**5.0**~~ and **5.0** ~~**6.0**~~, or 9.0 and 10.0...". and "Any excursions below **4.0** ~~**5.0**~~ and above 10.0 are violations".

  The fact sheet (page 10, under pH) and 40 CFR Part 401.17 state that the total excursions in any given month cannot be greater then 7 hours, and 26 minutes. Footnote [c] states that the "...excursions do not exceed 7 hours and 30 minutes per month".

**Response:**

Thanks, these items have been changed in the permit.

**Comment No. 9.**

- **p. 8, S2. A. –** The table heading "Monitoring Schedule for outfall 001 and 002" is incorrect. The table lists the monitoring schedule for outfall 001 only and is not appropriate for outfall 002. We propose a second table titled "Monitoring Schedule for outfall 002" be inserted after the outfall 001 table.

Monitoring Schedule for outfall 002

| Category | Parameter | Units | Sample Point | Minimum Sampling Frequency | Sample Type |
|---|---|---|---|---|---|
| Filter Plant Backwash | Flow | MGD | Outfall 002 | Daily | Calculated** |

**Calculation is based on filter plant backwash frequency and tank capacities.

**Response:**

Thanks, these items have been changed in the permit.

**Comment No. 10.**

- **p. 8, S2. A.** – Production should be included in the monitoring schedule.

**Response:**

Thanks, the monitoring requirement has been placed in the permit.

**Comment No. 11.**

- **p. 8, S2. A.** – A requirement for temperature monitoring has been added to the permit. The Department proposes no standards but the requirement to monitor continuously would become a permit condition. Daishowa believes this requirement is unnecessary because we are an ocean discharger with a very large body of receiving water, unlike river discharges which have issues currently under study regarding temperature.

  **In a study conducted for the last permit cycle our consultant, CH2M Hill, modeled effluent dilution for outfall 001. Their modeling showed that a five year high effluent temperature of 31.5 °C would only increase the receiving water temperature by 0.05 °C, far below the state water quality limit of 0.3 °C. Extending this calculation out, it would require an effluent temperature of 116.8 °C, at current mill flows, to violate state water quality standards. This effluent temperature is highly unlikely and perhaps even impossible.**

  Daishowa already monitors for temperature, although not currently required to in our permit. While the requirement to monitor seems rather innocuous at first it has the potential for creating a non-compliance situation if, due to equipment failure, temperature is not monitored in the fashion stated in the permit (i.e. missing data). While the information is presumably of some value to the Department and currently available upon request, Daishowa does not believe it should be at risk of monitoring violations since there are no established permit requirements for the outfall temperature.

**Response:**

During the drafting of the factsheet Ecology also performed a simple mixing of the effluent and the receiving water. From this simple calculation, Ecology agrees with your assessment at this time that the effluent has very little affect on the receiving water. However, many waters of the state have been listed on the 303d list for temperature. Therefore, Ecology would like to have data collected and reported on the effluent water. With the realization that the gap in the collected and reported temperature data would not cause any harm to the environment considering the current information available, we have placed exceptions to the continuous data concept under the footnote "*" defining continuous in special condition S2 (A).

**Comment No. 12.**

- **p. 10, Section S3.E.2.** – This draft permit requires Daishowa America to "Immediately notify the Department of the failure to comply". The previous permit required that the "permittee shall notify the Department by telephone...". We believe the previous permit language is more appropriate in addressing notification time since often the results of laboratory tests are not known for several hours or days ($BOD_5$) after sample collection. "Immediately" can be construed differently but is usually meant to be within minutes and will not alter events such as occasional exceedances of TSS that we currently report to the Department telephonically and in correspondence.

**Response:**

The permit requires you to notify the department after you know that a parameter will be out of compliance with the permit. For the BOD, you can not know until after the 5th day of the test, the values are checked and maybe cross-checked. Immediately, does not mean that if safety problems are encountered, that notification take precedence over the safety issues. Telephone communications are acceptable methods for initial notification. The statements stand.

**Comment No. 13.**

- **p. 14, Section S6.A-B. –** After careful review of this section we are not clear of the Department's intent as to what constitutes a "non-routine wastewater." Further discussion with respect to this section will be needed. Clarification of non-routine and unanticipated discharges is required. Is this special condition intended to cover trial chemicals such as defoamers for the de-ink mill and micro-nutrients for the clarifier? Furthermore sections S6.A.4-5 require analysis of the waste water streams before release. Daishowa's pulp and paper process does not typically use impoundments or tankage to hold waste waters before discharge so analysis from an impoundment before discharge is not possible.

**Response:**

One applicable example in the last permit term that this condition would have been applied is when the drive mechanism in the primary clarifier broke. We will be realistic in our expectations under this condition. The condition is kept.

**Comment No. 14.**

- **p. 18, S10. Sediment Sampling and Analysis Plan** – This special condition is too general in that it leaves the door open for a broad sediment re-sampling program depending upon the Ecology reviewer's interpretation. The last study was designed to fulfill broad requirements for information and was designed and completed with Ecology review. At the least this condition should be made specific to the compound of concern, hexachlorobenzene (hcb) and specific to the sampling points of concern, MZ-3, MZ-4, and AS-1. There was no detection of hcb at sampling points AZ-2 or AZ-1 and therefore it is not likely to be present in the future. This outfall has been in place for nearly 30 years and the results of the 1999 sediment sampling indicate very little evidence of impact from Outfall 001 and 002. Further the high-

current conditions and lack of fine-grained sediments make it seem unlikely that further sampling will provide significant information about this area.

Sampling point AS-1 was picked because it is away from the discharge point, approximately 1500 feet to the west and far outside the mixing zone. This area is sub-tidal and in a predominant up-current location based on typical near shore current flows in the vicinity of Port Angeles Harbor. Currents on the north side of Ediz Hook are usually very high. The presence of this one compound, hcb, above the SQS seems to indicate a background condition since it was not found in the sample locations immediately adjacent to the diffuser, AZ-1, AZ-2, MZ-1, MZ-2 (see page 6 of the Pentec report "NPDES Sediment Monitoring" dated June 14, 1999.) Based upon the report overall we do not see a need for repeating the sediment sampling.

Additional technical information, with respect to the 1999 sediment study, that supports our comment will follow shortly.

**Response:**

Ecology disagrees. The sediment's sampling plan is only required by this permit. The actual sampling may be required in the next permit. For major dischargers we believe the sediment sampling should be done every few years. For a sampling event as large as required for sediment, it makes sense to complete a full scan of all of the regulated sediment chemicals. The condition is kept.

**Comment No. 15. General Conditions**

Because your general comments deals with all permits, Water Quality Program has responesed to them. Your comments and their response are added below. They are as follows:

1. ***General conditions are based on federal and state law and regulations. The same set of conditions are used for all NPDES individual permits. They have been reviewed and approved by our attorney general and permit writers do not modify these conditions. If a particular condition is not applicable to your discharge situation you can ignore it. I have reviewed your comments and responded where I can.***

   - **p. 20, G3** – We propose the elimination of the first sentence of paragraph G3, and the following word "However". Start the provision with "The permit may only ..." The reason for the change is that the term "interested person" is ambiguous, and not part of the regulatory system. This language doesn't contain requirements that bind either the permittee or the Department, and does not belong in a permit condition.

***The term "interested person " comes directly from 40 CFR 124.5.***

Change the wording in paragraph A to read "The following ~~are~~ may be causes for terminating ...". The reason for this change is that it would then accurately reflect the terms used in the state regulations. See WAC 173-220-150(d).

***We believe the word "are" accurately reflects the regulation.***

We propose eliminating paragraph A.2. This provision is not in the regulations. Notification of changes is required already by provision G.21.

***This is directly from RCW 90.48.190.***

Paragraph B.3. should be modified by adding to the end of the sentence the following language " which justify the application of permit conditions that are different or absent from this permit." The reason for this change is to properly track the language of the relevant regulation: 40 CFR 122.62(a)(1).

***We agree this would provide some small measure of clarification and will recommend it for future permits.***

Paragraph B.6. should be eliminated because Daishowa is not subject to any compliance schedules under this permit. Any future compliance schedules would be pursuant to a regulatory order.

***See response 1 above.***

Paragraph B.7. should also be eliminated. It is inapplicable.

***See response 1 above.***

Paragraph C. should be modified to read: "the following ~~are~~ may be causes for modification...". This is to track the language in the regulations. See WAC 173-220-150(d).

***We believe the word "are" accurately reflects the regulation.***

- ***p. 21, G4*** *– This condition is redundant of Condition G21 and should be eliminated. G21 is more accurate in its reflection of relevant regulations.*

***This condition is derived from WAC 173-220-150. We agree it duplicates G21 and will recommend they be combined in the future.***

- **p. 22, G5** – We propose that the second sentence of this paragraph should be eliminated. The WAC provides that the Department can set a schedule for submission of engineering reports, etc., but does not specify the 180 day time period. There is no need for the schedule to be set in the permit. Since it would likely be set during the course of notification and discussions with the Department on proposed construction and modification.

***Ecology has determined that 180 days is a reasonable length of time unless a shorter time period is agreed upon.***

- ***p. 23, G9*** *– Condition G9 should be removed. It does not closely follow the language of 40 CFR 122.41(c) and (d). There is also an apparent conflict with Condition G16 (Upset) as it relates to a possible power outage which is plantwide and caused by conditions beyond the control of the permittee.*

***We believe this language complies with 40CFR 122.41(c). It does not reduce the opportunity to utilize the upset provision when appropriate.***

- **p. 23, G10** – This condition seems to be covered by other permit conditions and may not be needed. Ecology's intent for this may be more applicable to other facilities with different outfall arrangements and wastewater treatment plants.

***We believe this condition is needed and appropriate. This condition is imposed to prevent RAS from being discharged through the outfall.***

- p. 23, G12 **– We believe that we are already governed by these provisions. Mentioning that these two regulations are incorporated does not improve the facility-specific nature of the permit.**

***This condition is placed in the permit in case these regulations are modified during the course of this permit.***

- **p. 23, G13** – The condition does not mention that the imposed monitoring requirement cannot be arbitrary. New monitoring conditions generally are based on an existing or new standard of some type. It seems the Department always has authority to create new monitoring requirements that are justifiable even without condition G13 being in the permit

***Agrees, but this condition states that authority.***

- **p. 23, G15** – The Federal statute provides the most accurate statement of penalties for violating permit conditions. This draft general provision does not contain the specificity of the statute. We suggest that G15 be removed.

***This language is based upon RCW 90.48.140***

- **p. 25, G20** – This condition seems to be referring to statute 42 USC 1319 (c)(4) but is not entirely accurate in its paraphrase. We don't think it substantially improves the permit since we are already subject to this regulation, therefore would like to see it removed. If it does remain then the first sentence should be fixed. The word "knowingly", which is located at the end of the first line, has to be moved back to the place where it belongs in front of the word "falsifies". Also the words "per violation" in the 4th line needs to be removed, as they are not in the statute.

***This exact language was recommended to us by EPA to be used as a general condition and is used in their permits as a standard condition.***

- **p. 25, G21** – The last two sentences should be deleted since they are not contained in 40 CFR 122.41 (l) (1) and represent actions that the Department must take and not the permittee.

***We agree the sentences are not in 40 CFR 122.41(l)(1) but they are regulatorially correct (40 CFR 122.62) and they do clarify restrictions.***

- **p. 25, G22** – We propose the following replacement language for this condition. "The Permittee shall give advance notice to the Department of planned changes in the permitted facility or activity which may result in noncompliance with permit requirements." This shorter permit condition is consistent with 40 CFR 122.41 (l) (2).

***This language was provided by our Attorney General as a result of a lawsuit. It is intended to allow time for compliance with SEPA if necessary.***

- **p. 25, G23** – We do not understand which regulatory provision establishes this particular requirement. It also appears problematic because of the "relevant" language. How is the permittee to discern what the Department may consider relevant beyond the information submitted and reviewed by Department in the permit application?

***This requirement is directly from 40 CFR 122.41(l)(8)***

- **p. 26, G25** – Daishowa America does not have any current compliance schedules and therefore proposes that this condition should be eliminated.

***See response 1.***

## *End of General Conditions*

**Puget Soundkeeper Alliance**

**Comment No. 1.**

1). The Puget Sound Alliance (PSA) does not support the use of mixing zones to meet water quality standards. In section S12- Page 17, the zone mixing is described as having a chronic zone of 330 feet with a dilution factor of 342:1 and an acute mixing zone that is 33 feet in any direction and is diluted to a factor of 95:1. This should not be accepted: the mixing zone should be decreased from the previous permit (1996-2001), which has the exact mixing zone as the draft permit. We believe that the Department of Ecology should decrease the mixing zone in order to enforce the Clean Water Act by decreasing the mixing zone and to put pressure on the applicant to continually decrease their effluent discharge and use the best available technology and methods to control pollution.

**Response:**

The current rules and regulations allow both acute and chronic mixing zones if the level of wastewater treatment is at AKART (WAC 173-201A-100(2)). The dilution zones are kept in the permit.

**Comment No. 2.**

2). The fact that the amount of BOD and TSS allowed has increased since the last permit is not acceptable. In section S1, page 6 of the draft permit it shows the BOD and TSS daily maximum is 7,770 Lbs. BOD5/day and 12,730 Lbs. BOD5/day, respectively. The daily maximum of these in the old permit were 7,198 Lbs/day and 12,053 Lbs/day, in the the order shown previously. The new permit allows BOD and SS amounts to be no larger than 4,090 and 6,770 Lbs. $BOD_5$/day; the old permit though, again, had lower amounts 3,975 and 6,404 Lbs./day, in the oder used. The trend that is shown above should not be followed by the Department of Ecology. As stated previously the Department of Ecology must put a continued pressure on applicants in order to ensure that our natural resources are protected. Increasing BOD and TSS contaminants in our water does not comply with the Clean Water Act. We request that the Department of Ecology decrease the amounts of BOD and TSS permitted in the final permit.

**Response:**

The increases in BOD and TSS limitations was due to revision in the calculations of the production from salable product to off-of-the-machine production in accordance with 40 CFR 430.01(n). The permit limits were determined in accordance with the current rules and regulations. The limitation stands.